Transgender health 1

Transgender people: health at the margins of society

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In this paper we examine the social and legal conditions in which many transgender people (often called trans people) live, and the medical perspectives that frame the provision of health care for transgender people across much of the world. Modern research shows much higher numbers of transgender people than were apparent in earlier clinic-based studies, as well as biological factors associated with gender incongruence. We examine research showing that many transgender people live on the margins of society, facing stigma, discrimination, exclusion, violence, and poor health. They often experience difficulties accessing appropriate health care, whether specific to their gender needs or more general in nature. Some governments are taking steps to address human rights issues and provide better legal protection for transgender people, but this action is by no means universal. The mental illness perspective that currently frames health-care provision for transgender people across much of the world is under scrutiny. The WHO diagnostic manual may soon abandon its current classification of transgender people as mentally disordered. Debate exists as to whether there should be a diagnosis of any sort for transgender children below the age of puberty.

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This is the first in a Series of three papers about the health of transgender people

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Introduction

Transgender people (often called trans people) experience a degree of gender incongruence;[1] that is, a discordance between their personal sense of their own gender (their gender identity) and the sex assigned to them at birth.[2] Panel 1 defines some key terms related to gender identity.

The terms gender identity and gender incongruence refer to a person's own experience of who they are, and are not the same as sexual orientation, which is about to whom a person is attracted. A transgender man may be attracted to women (including, perhaps, transgender women), in which case he may identify as a heterosexual transgender man. Alternatively, he may be attracted to men (including, perhaps, transgender men), in which case his sexual identity may be as a homosexual or gay man. Furthermore, being transgender is not the same as being intersex. Intersex people develop atypically in regard to some or all aspects of their biological sex, whereas transgender people identify in a way that does not match their assigned sex (panel 2).

In preparing this article we accessed academic papers and documentation published by international agencies, governments and associated institutions, and community-based organisations. We searched various databases, including Google and Google Scholar databases. We also used relevant list serves and journal email alerts to ensure that up-to-date documentation was included. The peer review process, which proceeded by way of several steps, included a consultation meeting in Beijing in November, 2013, attended by, among others, transgender community leaders from several countries.

Gender-affirming health care

Transgender people may seek health-care services for reasons related to their gender incongruence (and accompanying dysphoria). They may seek information and counselling support to help explore identity issues, or to consider difficult decisions about gender transition,

Key messages

- Transgender people and their needs remain little understood, not only by health-care providers but also more generally in society (including by legislators and policy makers). An absence of appropriate information, together with ubiquitous misinformation, breeds stigma, prejudice, and consequent discrimination, harassment, and abuse, with alarming consequences for transgender people's health and wellbeing. Governments and other public and private entities should invest in public education on the subject of gender incongruence so that transgender people can experience full social inclusion. Individuals working with transgender people (including health-care providers) must be trained to provide services that are sensitive to transgender people's rights and responsive to their needs.
- Social and legal policies that affect the lives of transgender people should be gender affirmative, aiming to facilitate opportunities for transgender people to live congruent with their gender identity. Health policies should promote competent and gender-affirmative health care that is responsive to the medical needs of the individuals concerned. Where a public health-care system exists, health care for transgender people should be provided within that system.
- Transgender people have been classified by western psychiatry as mentally disordered. Arguably this view has served to sustain and aggravate stigma and the associated challenges that transgender people face in relation to rights and opportunities. WHO proposals for ICD-11 are for a diagnosis called gender incongruence, removed from the list of mental disorders and placed in a chapter called "Conditions related to sexual health". This proposal is welcomed by the global transgender community (as well as researchers and clinicians). However, there is substantial opposition from transgender communities and health professionals to a proposal for a diagnosis of gender incongruence to be used for children below the age of puberty. WHO should involve transgender communities fully in consultations on this matter. Government departments of health, which can influence their governments' position on these proposals when they are discussed at the World Health Assembly in 2018, should consult widely too.
- Much research remains to be done in the field of gender incongruence. The needs of older people, rural populations, and transgender men are particularly little understood. Although the development of gender identity in transgender people is not fully understood, a growing and persuasive body of evidence suggests that biological factors have a substantial role in predisposing some people towards gender incongruence. Governments and funding agencies should promote research in these areas and on factors that promote resilience to stigma and prejudice.

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Panel 1: **Definitions of terms**

Cisgender person
A person whose gender identity matches their sex assigned at birth, and who therefore, unlike transgender people, experiences no gender incongruence.

Gender
The attitudes, feelings, and behaviours linked to the experience and expression of one's biological sex.

Gender identity
The personal experience of oneself as a boy or man, girl or woman, as a mix of the two, as neither, or as a gender beyond man or woman. Some individuals (particularly in cultures which accept the idea of genders beyond man and woman) identify as members of "third genders" or use indigenous gender labels (see appendix).

Gender expression
The expression of one's gender identity, often through appearance and mode of dress, and also sometimes through behaviour and interests. Gender expression is often influenced by gender stereotypes.

Gender stereotypes
Ideas, current in the culture and times in which a person lives, about the different characteristics that men and women have and should have. Many transgender people can encounter rejection and hostility because of departure from a gender stereotype.

Gender incongruence
Incongruence between a person's own experience of their gender (gender identity) and the sex assigned to them at birth (birth-assigned sex).[2] Gender incongruence can have two aspects: social incongruence, between a person's gender identity and the gender that others recognise on the basis of that person's birth-assigned sex; and physical incongruence, between a person's gender identity and their primary or secondary sex characteristics.

Gender dysphoria
Discomfort or distress connected with one's own gender incongruence (social, physical, or both).

Gender transition
A person's adoption of characteristics that they feel match their gender identity.[2] Gender transition can involve social aspects such as changing appearance (including styles of dress and hair) and name, arranging new identity documents, or simply the use of a more suitable gendered pronoun. It can also involve a change in physical characteristics. Physical transition can facilitate social transition, enabling styles of dress, social activities, and (in many countries) changes in documentation that would not otherwise be possible. Those who engage in a physical transition are often popularly described as transsexual people.

Sex
A person's biological status (chromosomal, hormonal, gonadal, and genital) as male or female. An individual's sex at birth (birth-assigned sex) is usually determined on the basis of genital appearance, with those present usually assuming that other components of sex are consistent with the newborn's genital sex.

Sexual orientation
Sexual orientation is about whom one is sexually attracted to, and is not the same as gender identity.

Transgender person
Transgender people experience a degree of gender incongruence. Some intersex people, as well as some people considered by others to be cross dressers or transvestites, experience gender incongruence and accompanying dysphoria.

Transgender man
A person assigned female who identifies as a man or in similar terms (eg, as a "trans man" or " man of transgender experience").

Transgender woman
A person assigned male at birth who identifies as a woman or in similar terms (eg, as a "trans woman" or "woman of transgender experience").

and implications for family relationships, employment, and broader social stigma. Children and youth with gender issues, as well as their parents and teachers, may need support and information too.

Young adolescents going through puberty may seek gender-affirming health care involving gonadotropin-releasing hormone analogues (also called hormonal puberty blocking agents or puberty suppressants). Older adolescents and adults may seek masculinising or feminising ("cross-sex") hormones or surgery, or a range of other services. Such health care is sometimes popularly described as sex or gender reassignment,[2] or as gender-confirming[7] or gender-affirming health care.[8] Outcomes for gender-affirming health care are generally very good, whether the treatment is evaluated as a whole,[9,10] or the effects of hormones alone are considered.[11,12] Outcomes are positive when gender-affirming health care is delivered in adolescence.[13]

Transgender people may seek medical services beyond gender-affirming healthcare. Some will have special sexual and reproductive health-care needs; for example, those associated with gamete storage or care of a surgically constructed vagina. Some may have more general health-care needs linked to the use of hormones and silicone injections, and diseases associated with birth anatomy (for example, prostate cancer in a transgender woman).

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Given the probable size of the transgender population, and the range of health-care needs, it is important that primary health-care providers and others be trained in transgender health care, including protocols for referral to specialists where available.

The size of the transgender population

We do not know how many transgender people there are, or how many experience a need for health care, which poses a problem for health-care planners. The first task for the researcher in this area is to decide whom to count, and by what means. Transgender people are a very diverse group. Some live with their gender incongruence, but decide not to transition. Some make a social transition only, without accessing any gender-affirming health care. Some buy hormones from non-medical providers (or on the internet), or visit their local doctors rather than attending specialised clinics. In many parts of the world, stigma discourages transgender people from making their transgender status known to others or accessing health care of any sort. These and other considerations present challenges to the researcher attempting to ascertain the size of the transgender population.

Faced with these difficulties, researchers have tended to focus on the most easily counted subgroup: those who seek gender-affirming health care at specialist clinics (appendix). Clinic-based data are important for the planning of clinic-based services. However, such numbers grossly underestimate the size of the broader population of transgender people who cannot or do not access clinics, and tell us little about the much larger numbers who may benefit from information and counselling services.

More direct methods for estimating population sizes, in which samples from the general population are questioned about their identity, generate estimates ranging from 0·5% to 1·3% for birth-assigned males, and from 0·4% to 1·2% for birth-assigned females (table). If one of the lower estimates in the table, the 0.5% reported as an overall mean for birth-assigned males and females,[15] is extrapolated to a global population of 5.1 billion people aged 15 years and older (US Census Bureau, estimates for mid-2011) we arrive at a figure of around 25 million transgender people worldwide. This gives some idea of the potential worldwide (and currently largely unmet) need for transgender health care. The appendix shows more information about the studies cited in the table, as well as specific country population estimates.

Biological correlations in the development of gender dysphoria

A growing body of scientific evidence is now available to inform debate on the extent to which biological factors (especially hormonal and genetic), rather than factors such as parenting or social environment, contribute to the development of gender identity. Putative contributing factors that are not biological are not within the scope of this section. However, gender outcomes are probably influenced by interactions between underlying biology and cultural norms and mores, which generate social pressures on children (including from parents) to conform to behaviours typically associated with the sex assigned at birth. Despite these pressures, gender variant children identify in a way that is incongruent with their birth-assigned sex,[19] and which they may express in behaviours that contravene the norms of their culture. To

See Online for appendix

Panel 2: Intersex and transgender

Intersex is a term often used to describe individuals who develop atypically in regard to some or all aspects of their biological sex (chromosomal, hormonal, gonadal, or genital). Intersex conditions, of which there are many types, are anatomical, enzyme related, or neurological. Gender identity issues can arise, but do not themselves form part of the intersex condition. Most intersex conditions are not readily visible. They are often unknown to the individuals concerned. Those who are aware of an intersex condition are usually alerted to it by the genital ambiguity with which they are born. In contemporary medical literature, individuals with intersex conditions are often described as having a disorder of sex development (DSD). This term is resisted by many intersex community leaders and professionals on the grounds that intersex conditions should not be regarded as disorders. Difference of sex development has been suggested as a replacement term.[3]

Surgical modification of an intersex infant's genitalia, usually to achieve a less ambiguous and usually female appearance, remains common practice in many parts of the world. Such practices can lead to complications, either with regard to adult sexual and reproductive function, or if the individual later identifies as a gender other than the one assigned by surgery (in which case the intersex person also becomes, in effect, a transgender person). Many commentators now regard these surgeries as unethical, and there is a vigorous debate, including in courts of law and in the media, about whether such surgeries should be done.[4] Important rights issues are involved, relating to bodily integrity and informed consent. A more open medical approach is now being adopted in some parts of the world, in which, where possible, surgery is delayed, at least until the child's gender identity is well established or the child develops a capacity for informed consent.[5] It might also be possible to assign the child to a neutral sex category pending a determination that takes account of the child's own wishes. In early 2015, Malta outlawed any sex reassignment treatments on minors that could be deferred until the person affected could provide informed consent.[6]

	Sample	Measure	Prevalence of transgender people by birth-assigned sex		
			Male	Female	All
Conron et al (2012), USA[14]	28176 adults	Identification as transgender	0·5%*	0·4%*	0·5%
Glen and Hurrell (2012), UK[15]	9950 adults	Identification as other gender or in another way	0·6%†	0·4%†	0·5%†
Clark et al (2014), New Zealand[16]	7729 high-school students	Identification as transgender	1·3%‡	1·2%‡	1·2%
Kuyper and Wijsen (2014), Netherlands[17]	8064 adults	Identification on gender spectrum	1·1%	0·8%	0·9%¶
Van Caenegem et al (2015), Belgium[18]	1832 adults	Identification on gender spectrum	0·7%	0·6%	0·6%

*Extrapolated from table 1 in article. †Extrapolated from annex B in paper. ‡Extrapolated from table 1 in paper. ¶Extrapolated from table 3 in article.

Table: **Population studies yielding prevalence data for transgender people**

date, research has established no clear correlations between parenting and gender incongruence.[20,21]

In circumstances where infants have been born with ambiguous genitalia, neither genital surgery intended to "correct" the sex anatomy, nor parental upbringing in a social role consistent with that anatomy, guarantees that the child develops a gender identity congruent with the one to which he or she has been surgically and socially assigned. Similarly, when male infants have been surgically assigned to a female anatomy after accidental damage to the penis, it is impossible to guarantee that the children will grow up identifying as girls. These findings indicate that early brain development seems to have an indelible effect on gender identity that is resistant to normative social pressures[22–27] and that may result from prenatal sex hormones,[28] direct genetic effects,[29] or both.

Biological influences are evident in several other research findings. Two studies have reported the presence in transgender women of repeat polymorphisms in the gene coding for the androgen receptor, suggesting that these individuals have an atypical response to testosterone.[30,31] Other research studies report that some chromosome anomalies in people with a male phenotype (such as XXY, XYY, and mosaicism) are associated with a raised incidence of individuals who identify as women.[32,33] Additionally, in an XY fetus, low androgen levels associated with medication taken by the pregnant mother are associated with a raised incidence of gender dysphoria.[34]

In another area of research, studies of family co-occurrence of gender dysphoria indicate a genetic link in a subset of transgender individuals.[35] Studies of twins in which one of the pair has transitioned show that monozygotic twins have a significantly higher likelihood of concordance for transition than do dizygotic twins. In one study, 33% of male monozygotic twin pairs (where at least one twin had transitioned) were concordant for transition to live as women, including two pairs of twins who were reared apart from birth. Concordance for transition was 23% among female monozygotic twins where one twin had transitioned to live as a man, and this included one pair of twins who were raised apart. By contrast, concordance for transition among male or female dizygotic twins was very low.[15]

Studies of cerebral lateralisation of neural pathways associated with listening ability reveal differences between male and female brains in the cisgender population (persons who identify in a way that is consistent with their assigned sex). A study of click-evoked oto-acoustic emissions in untreated children and adolescents experiencing gender incongruence (24 assigned male at birth, identifying as girls), demonstrated responses that were more in agreement with those of 62 cisgender girl controls than with those of 65 cisgender boys.[36] The findings did not support the hypothesis that increased prenatal exposure to androgens had an opposite effect, in relation to oto-acoustic emissions, on gender incongruent young people assigned female at birth. However, in the case of the gender incongruent birth-assigned male, the authors postulate a role for atypically low testosterone levels during a crucial period of sex differentiation of the brain.

Similarly, a study of dichotic listening in transgender women showed that their lateralisation resembles that of cisgender women rather than that of cisgender men.[37] The cohort of transgender men and women involved in this research also showed a markedly raised prevalence of non-right-handedness compared with the cisgender population; this finding replicates those of previous studies, and reinforces the evidence of correlations between gender incongruence and atypical brain development.[38,39]

In addition, drawing on what is known about sex differences in sensitivity to specific odours, research has shown sensitivity patterns in transgender women that reflect their gender identity, rather than their birth-assigned sex, suggesting that they have sex-atypical physiological responses in specific hypothalamic circuits.[40]

Finally, post-mortem studies of small numbers of transgender individuals, two of which focused on the central subdivision of the bed-nucleus of the stria terminalis, and one on the uncinate nucleus, suggest neural differentiation discordant with genital and gonadal characteristics at birth, and similar to that of cisgender individuals of the same gender identity.[41–44] Although not all studies of the brains of transgender people have revealed cross-sex characteristics,[45] a study based on scans of the white matter in the brains of transgender men who had not yet undergone hormone treatment indicated that their neural patterns were masculinised and closer to those of birth-assigned males than to those of birth-assigned females.[46] Scans in untreated transgender women showed the patterns to be feminised and substantially different from those of birth-assigned male and female controls.[47]

Taken together, this research provides compelling evidence that the neurobiology of the brain is important in predisposing an individual to an incongruent gender identity. However, people experiencing gender incongruence, including those who are gender dysphoric, might have one, more than one, or none of these markers. Therefore, these indicators cannot be used diagnostically. The only valid route to understanding a person's gender identity is to listen to them. Whatever our scientific understandings, the needs of transgender people should be met on the basis of universally recognised human rights. It is to those rights, and their relationship to transgender people's health and wellbeing, that we now turn.

Rights and health

There remain places (for example, the Caribbean and much of Africa and the Middle East) for which little or no information is available about transgender people, their lived experiences, and their health needs. Nevertheless,

across much of the world, transgender people experience stigma on a daily basis, being viewed by others in society as sexually deviant, morally corrupt, unnatural, or mentally disordered.[48] They often experience what is called "minority stress", leading to poor health and wellbeing.[49]

Together the available reports indicate discrimination and abuse perpetrated by individuals, groups, organisations, and in broader society (appendix). Young transgender people often face intolerance at home or school, and drop out of education or leave home (or indeed are told to leave). Identity documentation carried by transgender adults is often incongruent with their gender identity and reveals their transgender status. Transgender people encounter workplace discrimination that often results in unemployment or underemployment. They drift towards poverty, especially if they dropped out of education early or left home and are therefore unable to draw on social and financial support. Transgender people can encounter problems accessing housing, basic goods and services, and even spaces that are otherwise public. Living on the margins of society, often excluded from opportunities available to their fellow citizens, and with health and wellbeing compromised, many are drawn into situations and patterns of behaviour involving unsafe sexual practices and substance abuse that leave them at risk of further ill health and wellbeing. Some engage in intentional self-harm.

Excluded from much of the workplace, transgender people (notably transgender women) often enter a narrow range of occupations. Many become involved in sex work,[50] often in conditions that put the individuals at risk of acquiring sexually transmitted infections.[51] A review of research into HIV prevalence among transgender populations worldwide has shown a prevalence 49 times greater than the background rate (appendix).[52] Transgender people across much of the world encounter harassment and abuse, often at the hands of law enforcement agencies, and on the basis of laws aimed at enforcing public decency or combating cross-dressing and so-called impersonation of the other sex. When arrested and detained transgender people are often placed in gender-inappropriate facilities that put them at further risk of assault.

Many transgender people live with the constant threat of violence. International research documented a total of 2115 killings of transgender people between January, 2008, and April, 2016.[53] Many more killings likely go unreported or are misreported as murders of gay and lesbian people. Non-lethal violence against transgender people is widespread. A national US study indicated that 35% of individuals who expressed their gender identity or gender non-conformity at any time between kindergarten and grade 12 (around ages 5 to 18 years) fell victim to physical violence, and 12% become victims of sexual violence.[54] In the same study, 7% of transgender adults had been physically assaulted at work, and 6% sexually assaulted.

All these experiences affect the emotional health and wellbeing of transgender people. 41% of the participants in the US study reported attempting suicide, compared with 1·6% of the general population. A national Australian study found that 56% of transgender people had been diagnosed with depression at some point in their lives, four times the rate for the general population. 38% had been diagnosed with anxiety, around 50% higher than the background rate.[55] Risk factors for suicidal behaviour in the transgender population include discrimination,[56] verbal and physical abuse,[57] being recognised as transgender,[58] internalised transphobia,[59] poor educational qualifications, unemployment and poverty,[58] and absence of social support.[49,60,61]

Worldwide, the research presents what has been described as a slope leading from stigma to sickness (figure).[62] Many transgender people experience additional stigma; for example when they are (or are perceived to be) poor, involved in sex work, or HIV positive.[62] US research shows that race and ethnicity is another source of stigma, with transgender people of colour experiencing the most severe discrimination, poverty, and lack of access to basic health care and social services in that country.[54] An Australian study of transgender people from the indigenous community had similar findings.[63]

Social, hormonal, and surgical transition are associated with improvements in emotional health and wellbeing, and are now widely viewed as effective treatments for gender dysphoria.[2] However, across much of the world, gender-affirming health care is unavailable, or is difficult to access or afford. Mental health-care services, which are scarce in many countries,[64] can be especially hard to access. Transgender people can remain at increased risk of death, including death by suicide, even after transition.[65]

Even when transgender people can access gender-affirming health care, they often find that providers lack skills in the area and discriminate against transgender people in a way that mirrors broader society. Providers are often seen as unsupportive or hostile to transgender

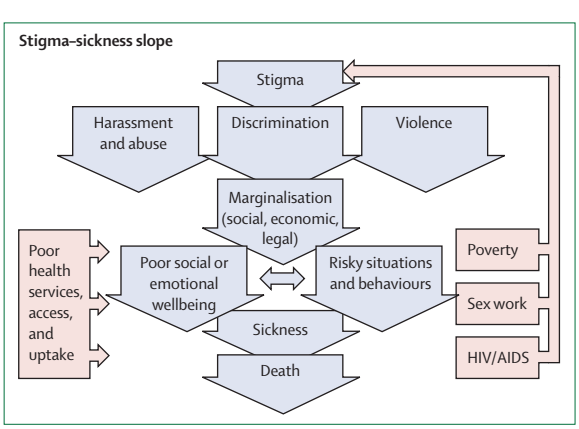

Figure: **The stigma–sickness slope**
Reproduced with permission from United Nations Development Programme.[62]

Panel 3: **Recent legislative reforms involving transgender people**

Many countries do not offer legal or administrative measures enabling gender recognition for transgender people. Even in Europe, which is often seen as progressive on these matters, eight out of 49 states fail to offer any such measures. Worryingly, among the 33 states where measures are available, 17 impose sterilisation requirements on those who seek recognition, despite opposition from authoritative voices in health and rights, who view such requirements as a form of coercive medicine. Some states are moving towards less intrusive legal arrangements for gender recognition. In Europe, ten states (Austria, Belarus, Denmark, Germany, Ireland, Malta, Moldova, the Netherlands, Portugal, and the UK) have dispensed with requirements for medical intervention of any sort.[84] Steps towards less onerous legal requirements have also taken place in parts of Canada, the USA, Australia, New Zealand, Nepal, India, and Pakistan.

Three European countries—Denmark, Malta, and Ireland—have dispensed with medical requirements altogether (even a requirement for a diagnosis), following the lead of Argentina in adopting a so-called declaration model, in which transgender people are able to determine their gender through a simple administrative procedure.[85] The Argentinian and Maltese laws are particularly progressive.[6,86] First, they extend legal gender change rights to children and young people. At least two children in Argentina, one of whom was aged 6 years, have availed themselves of this right. Second, these laws explicitly affirm the right of transgender people to appropriate health care. The Maltese law arguably goes the furthest. It contains anti-discrimination provisions offering protection on the grounds of not only gender identity but also gender expression. Finally, in a provision of particular importance for intersex infants and young children, it prohibits any medical procedures on the sex characteristics of a minor of the procedures can be deferred until that minor can provide informed consent.

Several countries are providing opportunities for transgender people to be recognised outside the gender binary. New Zealand, Australia, Nepal, Pakistan, and India have moved, or are moving, towards such arrangements.

Community-based organisations continue to fight for gender recognition rights and for removal of onerous requirements for approval (appendix).[87] Research into the effect of legislative changes on gender recognition is scant. Available findings suggest that such changes can affect transgender people's quality of life.[88]

people's health-care needs, or as providing inadequate care.[66–69] For these reasons, transgender people often make use of parallel providers (for example, practitioners known as "silicone pumpers", who often come from the transgender community, are medically unqualified, and use sub-standard equipment and materials) and engage in self-administered (and unmonitored) hormone treatment,[70–72] sometimes as part of social gatherings.[73] Those who seek surgery and can afford it often choose to travel to other countries to get it.

Sexual health care for transgender people is often inadequate, with many planners, funders, and providers having failed in the past to address the needs of transgender women as a population distinct from men who have sex with men. Neglect of the needs of transgender women has contributed to the disproportionate risk of HIV in this group, and widespread failure to develop effective interventions to address this global problem.[74,75] Transgender men's needs for sexual health care have been ignored almost entirely. Finally, many health-care providers remain poorly prepared to address trans-related general health-care needs (for example for a transgender man who is pregnant, or for a transgender woman who has prostate cancer).

In summary, transgender people's daily experience across much of the world is one in which rights are denied. A key human rights document, the Yogyakarta principles, has detailed the ways in which existing human rights law applies to gender identity, as well as to sexual orientation.[76] The document draws on instruments of international law to which many states are signatories; for example, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the Convention on the Rights of the Child, the Convention on the Elimination of all Forms of Discrimination Against Women, and the Convention Against Torture and Cruel, Inhuman and Degrading Treatment or Punishment.

In the context of such documents, it is clear that many transgender people are routinely denied their rights to equality and non-discrimination, to recognition before the law, to security of the person, to privacy, to treatment with humanity while in detention, to work, to an adequate standard of living, to adequate housing, to education, to found a family, to the highest attainable standard of health, to protection from medical abuses, to freedom of expression, to freedom of movement, and to freedom from cruel, inhuman, or degrading treatment or punishment.

Many of the challenges faced by transgender people are exacerbated by laws and policies that deny them gender recognition. Identity documents undermine privacy when they reveal a transgender person's birth-assigned sex, and can worsen the risk of discrimination in education, the workplace, housing, health care, and elsewhere. Laws and policies that impose onerous preconditions for gender recognition commonly violate a range of rights. The effect of difficulties related to gender recognition on the lives of transgender people is extensively documented.[77–80] Authoritative voices in the fields of health and rights have highlighted the need to remove unreasonable barriers to gender recognition.[77,78] Preconditions mandating sterilisation or genital reconstruction have been the subject of especially strong criticism,[77,81–83] and in recent years many countries have abandoned surgical and other medical requirements. Some no longer link gender recognition to health care at all, having discarded requirements even for a diagnosis. The World Professional Association for Transgender Health (WPATH) supports such developments and has advocated in recent policy statements for the right to identity recognition without social or medical preconditions of any kind (panel 3).[89]

Transgender people: mentally disordered?

Transgender peoples' access to health care is complicated by the fact that, at present, their experiences are conceptualised as a mental disorder. The view that transgender people are mentally disordered has long

Panel 4: The gender incongruence of childhood proposal

Many transgender adolescents and adults have a need for substantial and continuing health care; gender-affirming hormones, and surgery, or (for some of the youngest adolescents entering puberty) hormonal puberty-blocking agents. There has been lively debate on the best diagnostic approach for facilitation of health-care access. DSM-5 retains a mental disorder diagnosis, albeit one focusing on gender dysphoria rather than gender identity. The WHO Working Group on Sexual Disorders and Sexual Health has proposed that ICD-11 should contain two diagnoses—gender incongruence of adolescence and adulthood (GIAA) and gender incongruence of childhood (GIC)—focusing on the mismatch between an individual's gender identity and their assigned sex. The working group proposes to place the diagnoses in a chapter called "Conditions related to sexual health".[91]

There is general agreement that, with most health-care systems set up as they are (and notwithstanding the rights to health care available in places like Argentina and Malta; panel 3) diagnosis of some sort is needed to facilitate access to puberty suppressants for young adolescents and to hormones and surgery for older adolescents and adults. But there is considerable debate about the need for a diagnosis for pre-pubertal children, who do not need bodily modification. Instead, many children benefit from information and advice that supports them while they explore their gender, helps them become comfortable with whatever gender identity they experience, and (in the event of gender incongruence) helps them explore the options open to them, as well as ways of coping with reactions of others to their gender issues. They need to know that their identity is respected, and that this respect for identity will continue regardless of whether their identity changes in the future. Their teachers and parents need information and support too. None of these circumstances, it is argued, justifies designating children's gender difference as a disease and subjecting children to the stigma of a pathologising diagnosis as represented by the GIC proposal.

Proponents of the GIC diagnosis refer, among other things, to the enabling effect it might have on development of services and research for the children diagnosed, who, in the majority of cases, it is claimed, become more comfortable with their assigned gender as they grow older.[98] Opponents of the diagnosis remain unconvinced by these arguments, noting the favourable developments in clinical services and research for gay and lesbian people after the removal, decades ago, of homosexuality diagnoses from diagnostic manuals.[99] They add that the GIC proposal is inconsistent with another proposal regarding a range of residual diagnoses (such as sexual maturation disorder and egodystonic sexual orientation) that, long after the removal of the homosexuality diagnosis, continue to pathologise gay and lesbian young people who are exploring, coming to terms with, and learning to become comfortable expressing their sexual orientation.[100] The WHO Working Group proposes that such diagnoses be removed from ICD altogether and Z codes be used to enable and document access to health services on the part of such individuals.[101]

Alternative proposals have been made counter to the GIC proposal. An expert group convened by Global Action for Trans* Equality (GATE) in Buenos Aires in 2013 has proposed an alternative diagnostic scheme that facilitates access to the sort of support that some young children need, as well as documenting such support, without stigmatising gender difference or undermining ethical and rights principles in work with children.[102] The alternative approach makes use of ICD Z codes, which do not represent pathologising diagnoses, but rather document factors influencing health status and contact with health services. These codes are currently located in chapter 21 of ICD-10. Significantly, the GATE group's proposal to use Z codes in relation to pre-pubertal children exploring gender identity issues mirrors the WHO working group's own proposals in regard to young people exploring sexual orientation issues.

Influential transgender organisations such as International Campaign Stop Trans Pathologisation (STP) and Transgender Europe (TGEU) have declared themselves opposed to the GIC proposal, on the grounds that the pathologisation of gender diversity in young children is unnecessary and harmful. In February, 2013, in San Francisco, a meeting of experts convened by WPATH to develop a consensus on the WHO working group proposals was split evenly (14:14) on the proposed GIC diagnosis.[103] Opposition to the GIC proposal appears to be gathering strength. A WPATH membership survey from December, 2014 to January, 2015, indicates that outside the USA opposition to the GIC proposal is strong among professionals working in the field.[104] Meanwhile, at least two conferences have issued declarations opposing the GIC proposal, and in 2015,[105,106] a motion was passed in the European Parliament opposing the GIC proposal.[107] Meanwhile, at time of writing, WHO has embarked on field trials for the GIC diagnosis.

been criticised by transgender people, clinicians, and researchers, with arguments focused on the way that such diagnoses psychopathologise diversity (turn difference into mental disorder), with consequences for health and wellbeing. In response, in 2010, WPATH issued a public statement, in which it "strongly urges the de-psychopathologisation of gender variance worldwide."[90]

Several arguments (of which only a few can be summarised here) have been made for the removal of transgender diagnoses from the list of mental disorders. First, the view that transgender people are mentally disordered is an accident of history rather than one founded on scientific evidence.[91] Mental health treatments aimed at changing a person's gender identity and expression to make them more congruent with sex

assigned at birth (so-called reparative, reorientation, and conversion therapies) are considered unsuccessful and unethical.[2] Instead, as discussed in the second paper in this Series,[92] health care that aims to help transgender people live in their affirmed gender is widely regarded as the most effective in ensuring their health and wellbeing.

Second, mental disorders are highly stigmatised conditions across much of the world, and perhaps especially in low-income and middle-income countries.[93] The psychopathologisation of gender incongruence confers a stigma that is particularly pernicious, since it is the identities of transgender people that are pathologised. The view of transgender people as mentally disordered prompts or reinforces discriminatory behaviour, including in the workplace. It may also undermine the willingness of health-care providers to trust transgender people's ability to make decisions about their own care, including that related to hormones and surgery.

Third, psychopathologisation can undermine transgender people's claims for recognition in their affirmed gender. The view that a transgender woman's identity is a mentally disordered one implies that she is a mentally disordered man. The transgender man is, by implication, likely to be seen as a mentally disordered woman. The view can therefore encourage (or at least provide a convenient rationale for) the questionable gender reparative therapies mentioned earlier, rather than gender-affirming health care that supports greater wellbeing.

The two key publishers of diagnostic manuals have each responded to these critiques, albeit in different ways. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) contains a diagnosis called "gender dysphoria".[94] The diagnosis focuses less on an individual's gender incongruence, and more on associated distress, than was the case in earlier editions of DSM (for example, "gender identity disorder" in DSM-IV). These changes were largely in line with advice offered by WPATH.[95] Although these changes are welcomed by many clinicians and researchers (and by transgender people themselves) it remains the case that the distress that prompts the DSM-5 diagnosis of gender dysphoria is distress about gender incongruence, and the diagnosis remains one of mental disorder.

More transformative developments in diagnostic thinking are underway at WHO, which publishes the International Statistical Classification of Diseases and Related Health Problems (ICD). The current revision, ICD-10, is freely available on the web, has been translated into 41 languages, and worldwide is the classification system most often used by psychiatrists working with patients.[96] The key diagnoses for transgender people in ICD-10 are currently transsexualism (for adolescents and adults) and gender identity disorder of childhood (for children below the age of puberty), both mentioned in chapter 5, entitled "Mental and behavioural disorders", in a section called "Disorders of adult personality".[97] ICD is being revised, with approval of ICD-11 currently expected in 2018. A WHO Working Group on Sexual Disorders and Sexual Health has proposed to reformulate these diagnoses as gender incongruence, with one diagnosis for adolescents and adults, and one for children below the age of puberty. Importantly, the group has proposed that these diagnoses be removed from the chapter on mental and behavioural disorders, and relocated to one called "Conditions related to sexual health".[91] If these proposals are approved and incorporated into ICD-11, the move will be a truly historic one for transgender people and those involved in their health care (see appendix). However, the group's proposal for a diagnosis of "gender incongruence of childhood" (GIC), to be used with children under the age of puberty, has generated substantial criticism (panel 4).

Conclusions

We have noted that transgender people have a gender identity that is not congruent with their assigned sex, and that they may experience discomfort or distress where opportunities to express that identity are denied them or where that identity is not respected. Some transgender people seek gender-affirming healthcare aimed at bodily changes to match their gender identity. Gender incongruence is more common than clinic-based studies suggest, and may be linked to biological factors. We have seen that transgender people often encounter stigma, discrimination, and abuse in their lives. They are edged towards the margins of society, where they get involved in risky situations and risky behaviours. Globally they bear a heavy burden of violence, as well as of HIV risk. Some governments are taking steps to address human rights violations against transgender people. Across much of the world, transgender people have difficulty accessing or affording good quality health care, whether specific to their gender needs or more general in nature. The view of transgender people as mentally disordered has potentially negative impact on transgender people's health and wellbeing. WHO proposals to abandon the psychopathological model are welcomed by many researchers, clinicians, and transgender communities. These reforms promise empowerment for transgender people, enabling them to exercise greater autonomy in their lives. The question as to whether there should be a diagnosis for children below the age of puberty is currently the subject of debate.

Contributors

S Winter took the lead in writing and revising the manuscript, with all authors contributing to the literature search and writing.

Declaration of interests

We declare no competing interests. S Winter, JG, DK, S Whittle, and KW are or have been members of the WPATH board of directors. JG is, and S Whittle has been, president of WPATH. S Winter, JG, DK, S Whittle and KW were among the co-authors for the WPATH standards of care (version 7). S Winter was a member of the WHO Working Group on Sexual Disorders and Sexual Health, as well as of the GATE Civil Society Experts Group.

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